

Code No: 53023

Set No. 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., II Mid-Term Examinations, December - 2011

DATA STRUCTURES THROUGH C ++

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

- 1) The data structure that is used to keep the vertices whose adjacent vertices are to be visited in the Depth first traversal _____ []
a) Queue b) stack c) heap d) dictionary.
- 2) In a B-tree of order 'm' all the leaf nodes except the root node should have minimum of ____ non empty children. []
a) $\lceil m/2 \rceil$ b) $\lfloor m \rfloor$ c) $\lfloor m-1 \rfloor$ d) $\lfloor (m/2)-1 \rfloor$
- 3) _____ algorithm is recommended for the binary strings pattern matching []
a) Brute force b) Boyer Moore c) KMP d) Morris
- 4) The number of edges incident from a vertex v_i called _____ []
a) In degree b) out degree c) pendent d) degree
- 5) Merge sort uses _____ []
a) divide and conquer b) backtracking c) greedy approach d) heuristic approach
- 6) Graph can be represented by _____ []
a) Adjacency matrix b) adjacency list c) queue d) both a & b
- 7) _____ is the application of Priority queue []
a) Scheduling of jobs in operating system b) text editors
c) spell checking programs d) heap
- 8) In LR Rotation the node which is imbalanced is replaced by _____ []
a) root of the left subtree b) root of right subtree
c) left child of right subtree d) right child of left subtree
- 9) A compressed trie is a kind of standard trie in which internal node has atleast degree of []
a) 3 b) 1 c) 2 d) -1
- 10) The difference between heights of left subtree and Right subtree is called []
a) Balanced factor b) height difference c) Rank d) Load balance

Cont....2

Code No: 53023**Set No. 1****II Fill in the blanks:**

- 11) _____ is a complete binary tree in which the value in each node is lesser than those in its children.
- 12) In a AVL Tree LL rotation the node which is imbalanced will move towards _____
- 13) The search, insert and delete operations on a m-way search tree of height have the complexity as _____
- 14) _____ algorithm is preferred for pattern matching if the size of string is large compared to the length of the pattern.
- 15) A node with 'k' subtrees will have _____ elements in B-Tree.
- 16) _____ is a technique of finding the substring in text which is equal to pattern.
- 17) _____ is collection of elements that each element has been added a priority.
- 18) Graph is a collection of _____ and _____
- 19) _____ is required when data being sorted do not fit in to main memory.
- 20) _____ consists of a set of vertices V and a set of edges E.

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Code No: 53023

Set No. 2

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., II Mid-Term Examinations, December - 2011

DATA STRUCTURES THROUGH C ++

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

- 1) The number of edges incident from a vertex v_i called _____ []
 a) In degree b) out degree c) pendent d) degree
- 2) Merge sort uses _____ []
 a) divide and conquer b) backtracking c) greedy approach d) heuristic approach
- 3) Graph can be represented by _____ []
 a) Adjacency matrix b) adjacency list c) queue d) both a & b
- 4) _____ is the application of Priority queue []
 a) Scheduling of jobs in operating system b) text editors
 c) spell checking programs d) heap
- 5) In LR Rotation the node which is imbalanced is replaced by _____ []
 a) root of the left subtree b) root of right subtree
 c) left child of right subtree d) right child of left subtree
- 6) A compressed trie is a kind of standard trie in which internal node has atleast degree of _____ []
 a) 3 b) 1 c) 2 d) -1
- 7) The difference between heights of left subtree and Right subtree is called _____ []
 a) Balanced factor b) height difference c) Rank d) Load balance
- 8) The data structure that is used to keep the vertices whose adjacent vertices are to be visited in the Depth first traversal _____ []
 a) Queue b) stack c) heap d) dictionary.
- 9) In a B-tree of order 'm' all the leaf nodes except the root node should have minimum of _____ non empty children. []
 a) $\lceil m/2 \rceil$ b) $\lceil m \rceil$ c) $\lceil m-1 \rceil$ d) $\lceil (m/2)-1 \rceil$
- 10) _____ algorithm is recommended for the binary strings pattern matching []
 a) Brute force b) Boyer Moore c) KMP d) Morris

Cont....2

Code No: 53023**Set No. 2****II Fill in the blanks:**

- 11) _____ algorithm is preferred for pattern matching if the size of string is large compared to the length of the pattern.
- 12) A node with 'k' subtrees will have _____ elements in B-Tree.
- 13) _____ is a technique of finding the substring in text which is equal to pattern.
- 14) _____ is collection of elements that each element has been added a priority.
- 15) Graph is a collection of _____ and _____
- 16) _____ is required when data being sorted do not fit in to main memory.
- 17) _____ consists of a set of vertices V and a set of edges E.
- 18) _____ is a complete binary tree in which the value in each node is lesser than those in its children.
- 19) In a AVL Tree LL rotation the node which is imbalanced will move towards _____
- 20) The search, insert and delete operations on a m-way search tree of height have the complexity as _____

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Code No: 53023

Set No. 3

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., II Mid-Term Examinations, December - 2011

DATA STRUCTURES THROUGH C ++

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

- 1) Graph can be represented by _____ []
 a) Adjacency matrix b) adjacency list c) queue d) both a & b
- 2) _____ is the application of Priority queue []
 a) Scheduling of jobs in operating system b) text editors
 c) spell checking programs d) heap
- 3) In LR Rotation the node which is imbalanced is replaced by _____ []
 a) root of the left subtree b) root of right subtree
 c) left child of right subtree d) right child of left subtree
- 4) A compressed trie is a kind of standard trie in which internal node has atleast degree of []
 a) 3 b) 1 c) 2 d) -1
- 5) The difference between heights of left subtree and Right subtree is called []
 a) Balanced factor b) height difference c) Rank d) Load balance
- 6) The data structure that is used to keep the vertices whose adjacent vertices are to be visited in the Depth first traversal _____ []
 a) Queue b) stack c) heap d) dictionary.
- 7) In a B-tree of order 'm' all the leaf nodes except the root node should have minimum of ____ non empty children. []
 a) $\lceil m/2 \rceil$ b) $\lceil m \rceil$ c) $\lceil m-1 \rceil$ d) $\lceil (m/2)-1 \rceil$
- 8) _____ algorithm is recommended for the binary strings pattern matching []
 a) Brute force b) Boyer Moore c) KMP d) Morris
- 9) The number of edges incident from a vertex v_i called _____ []
 a) In degree b) out degree c) pendent d) degree
- 10) Merge sort uses _____ []
 a) divide and conquer b) backtracking c) greedy approach d) heuristic approach

Cont....2

Code No: 53023**Set No. 3****II Fill in the blanks:**

- 11) _____ is a technique of finding the substring in text which is equal to pattern.
- 12) _____ is collection of elements that each element has been added a priority.
- 13) Graph is a collection of _____ and _____
- 14) _____ is required when data being sorted do not fit in to main memory.
- 15) _____ consists of a set of vertices V and a set of edges E.
- 16) _____ is a complete binary tree in which the value in each node is lesser than those in its children.
- 17) In a AVL Tree LL rotation the node which is imbalanced will move towards _____
- 18) The search, insert and delete operations on a m-way search tree of height have the complexity as _____
- 19) _____ algorithm is preferred for pattern matching if the size of string is large compared to the length of the pattern.
- 20) A node with 'k' subtrees will have _____ elements in B-Tree.

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Code No: 53023

Set No. 4

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. I Sem., II Mid-Term Examinations, December - 2011

DATA STRUCTURES THROUGH C ++

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.**I Choose the correct alternative:**

- 1) In LR Rotation the node which is imbalanced is replaced by _____ []
 a) root of the left subtree b) root of right subtree
 c) left child of right subtree d) right child of left subtree
- 2) A compressed trie is a kind of standard trie in which internal node has atleast degree of []
 a) 3 b) 1 c) 2 d)-1
- 3) The difference between heights of left subtree and Right subtree is called []
 a) Balanced factor b) height difference c) Rank d) Load balance
- 4) The data structure that is used to keep the vertices whose adjacent vertices are to be visited in the Depth first traversal _____ []
 a) Queue b) stack c) heap d) dictionary.
- 5) In a B-tree of order 'm' all the leaf nodes except the root node should have minimum of ____ non empty children. []
 a) $\lceil m/2 \rceil$ b) $\lceil m \rceil$ c) $\lceil m-1 \rceil$ d) $\lceil (m/2)-1 \rceil$
- 6) _____ algorithm is recommended for the binary strings pattern matching []
 a) Brute force b) Boyer Moore c) KMP d) Morris
- 7) The number of edges incident from a vertex v_i called _____ []
 a) In degree b) out degree c) pendent d) degree
- 8) Merge sort uses _____ []
 a) divide and conquer b) backtracking c) greedy approach d) heuristic approach
- 9) Graph can be represented by []
 a) Adjacency matrix b) adjacency list c) queue d) both a & b
- 10) _____ is the application of Priority queue []
 a) Scheduling of jobs in operating system b) text editors
 c) spell checking programs d) heap

Cont....2

Code No: 53023**Set No. 4****II Fill in the blanks:**

- 11) Graph is a collection of _____ and _____
- 12) _____ is required when data being sorted do not fit in to main memory.
- 13) _____ consists of a set of vertices V and a set of edges E.
- 14) _____ is a complete binary tree in which the value in each node is lesser than those in its children.
- 15) In a AVL Tree LL rotation the node which is imbalanced will move towards _____
- 16) The search, insert and delete operations on a m-way search tree of height have the complexity as _____
- 17) _____ algorithm is preferred for pattern matching if the size of string is large compared to the length of the pattern.
- 18) A node with 'k' subtrees will have _____ elements in B-Tree.
- 19) _____ is a technique of finding the substring in text which is equal to pattern.
- 20) _____ is collection of elements that each element has been added a priority.

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